

VITOROVIC, D.

Jovanovic, S. Vitorovic, D.
"Contribution to the study of oil shales from Aleksinac; determination of the
organic material of oil shales and determination of volatile material and fixed
carbon in spent shales." p. 347.
(Glasnik, Vol. 17, no. 6, 1952, Beograd.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September
1953, Incl.

VITOROVIC, M.

Seizures of jacksonian epilepsy in the treatment with neuroleptic drugs. Neuropsihijatrija 11 no.1:90-99 '63

1. Bolnisnica za dusevne in zivzne bolezni Ljubljana-Polje in
Psihiatricna klinika Medicinske fakultete v Ljubljani ;
predstojnik: prof.dr. J.Kanoni.

*

EORSTNAR, Marijen; KOBAL, Mara; VITOJEVIC, Monello

Thromboembolism of the pulmonary artery during treatment with neuroleptics. Zdrav. vestn. 34 no.1:4-7 '65.

1. Bolnisnica za duševne in živčne bolezni Ljubljana-Polje (direktor: prof. dr. Janez Kanoni).

GOLUBOVIC, Vasilije B.; SAPER, Radomir P.; VITOROVIC, Olga

Phenolquinolineine, a new analytic indicator. II. The dissociation constants. Glas Hem dr 25/26 no.5/7:335-337 '60/'61.

1. Tehnoloski fakultet, Hemijsko-tehnicki zavod, Beograd.

GOLUBOVIC, Vasilije B.; SAPER, Radomir P.; VITOROVIC, Olga

Phenolquinolineine, a new analytic indicator. II. The dissociation constants. Glas Hem dr 25/26 no.5/7:335-337 '60/'61.

1. Tehnoloski fakultet, Hemijsko-tehnicki zavod, Beograd.

YUGOSLAVIA / Chemical Technology. Chemical Products and
Their Application. Pharmaceuticals. Vitamins. H
Antibiotics.

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 43394.

Author : Vitorovic O., Velasevic K., Zivanovic D.
Inst : Not given.
Title : Effect of Supersonic Waves on the PVTD Type Dextran.

Orig Pub: Arkhiv farmats., 1958, 8, No 3, 183-187.

Abstract: Supersonic waves (SW) of 800 kcy/sec frequency and of 0.30 v/cm² intensity (I), in the course of 15 minutes cause dipolymerization and lowering of viscosity η of the 0.45% water solution of dextran (D) (1 hour after dissolving, 15 min., 6-12°); to cause a change of the 2.65% D solution I of 0.56 v/cm² is required. With the increase in I, η and molecular weight decrease proportionally. When I = 1.5 v/cm²,

H-42

Card 1/2

YUGOSLAVIA / Chemical Technology. Chemical Products and
Their Application. Pharmaceuticals. Vitamins. H
Antibiotics.

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 43394.

Abstract: η are 0.181 and 0.205 instead of 0.253, and molecular weights are lowered by 46 and 32% for the 0.45 and 2.65% solutions of D. For the prolonged action of SW exceeding 10 minutes, η is proportionally lowered. In the action of SW (1.5 v/cm², 15 min.) on the light fraction derived from D with the acid CH₃OH no changes were noticed. In the case involving a mixture of medium and heavy fractions, the depolymerization is observed. It is more pronounced for the heavy fraction (η varies from 0.304 and 0.361 up to 0.293 and 0.337, and molecular weight varies by 7 and 113% respectively). --
I. Matveyeva.

Card 2/2

GOLUBOCIC, Vasilije B.; VITOROVIC, Olga; SAPER, Radomir P.

Copper determined with perimidine. Glas Hem dr 25-26 no.8/10:535-537 '60/'61.

1. Faculty of Technology, Chemical Technical Institute, Beograd,

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860120017-5

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860120017-5"

Kazakh State U. in Kirov. Alus - ita

USSR / Pharmacology, Toxicology. Antiseptics.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 27886

Author : Vitorskiy, A. P.
Inst : Belorussian Scientific Research Skin-Venerology Institute

Title : The Study of Fungistatic and Fungicidal Properties of Various Chemical Preparations. Report I. The Influence of Phosphorus-Organic Compounds No. 36 and 45 in Dermato-phytes

Orig Pub : Sb. nauchn. rabot Belorussk. n.-i. kozhno-venerol. in-t, 1957, 5, 319-321

Abstract : Phosphorus-organic compounds No. 36 and 45 do not possess fungicidal properties to Tr. gipseum in dilutions of 1 : 2000 and higher. The preparation No. 36 possesses fungistatic properties to Tr. violaceum in a dilution

Card 1/2

USSR / Pharmacology, Toxicology. Antiseptics.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 27886

1 : 3000 and lower, and No. 45 - 1 : 2000 and lower. --
From the author's resume

Card 2/2

SVIRIDOV, Timofey Mikhaylovich; VITORSKIY, V.K., dots., kand.
tekhn. nauk, otv. red.; CONCHAROVA, I.V., red. izd-va;
SAGITULLINA, R.I., tekhn. red.

[Ionic devices; third lecture for students of the departments of electricity, physics, and power engineering] Ionnye pribory; lektsiia 3 dlia studentov elektrofizicheskogo i energeticheskogo fakul'tetov. Moskva, Vses. zaochn. politehn. in-t, 1960. 22 p. (MIRA 15:8)
(Electronic apparatus and appliances)

L 35022-65 EWT(m)/EPF(n)-2/EMA(d)/T/EWP(t)/EWP(k)/EWP(b)/EMA(s) PF-L/Pu-L
INP(c) JD/HW/JG
ACCESSION NR AT404774 61 000 238 0000 0004

TITLE The effect of ...

SOURCE ...

TOPIC ...

ABSTRACT The effect of ...

Card 1/2

ly ruptured and cracks propagated. Long air has blemishes and streaks.

VITORT, G.K.

PHASE I BOOK EXPLOITATION

SOV/4634

Epshteyn, Yevgeniy Fedorovich, Emanuel' Izrailevich Arsh, and Genrikh Konstantinovich Vitort

Novyye metody razrusheniya gornykh porod (New Methods of Disintegrating Rocks)
Moscow, Gostoptekhizdat, 1960. 85 p. 2,100 copies printed.

Executive Ed.: S.M. Kayeshkova; Tech. Ed.: L.V. Ganina.

PURPOSE: This book is intended for engineers and technicians working in the petroleum, coal, mineral, and construction industries.

COVERAGE: The author describe new methods of disintegrating rocks in drilling bore-holes, methods of secondary crushing, and the development of coal and ore deposits. Rotary-percussion drilling with immersed hydraulic drills, and the disintegration of rock by means of electrohydraulic units and high frequency currents are described. The results of industrial and laboratory tests of various working units are given. No personalities are mentioned. There are 84 references: 81 Soviet, 1 German, 1 English, and 1 Polish.

TABLE OF CONTENTS:

Card 1/3

BOCHKOVA E. I., gor. inzh.; VIDEN, G.K., kand. tekhn. nauk

Testing percussion pneumatic hits with large hard-alloy plates.
Gor. zhur. no.7:62-64 JI '65. (MIRA 18:8)

1. Institut sverkhтвердых materialov Gosplana UkrSSR, Kiyev.

VITORT, G.K., kand.tekhn.nauk; ZELENSKIY, N.M., kand.tekhn.nauk;
MIRONYUK, A.F., inzh.

Results of tests of rigs for thermal breaking of rocks. Izv. vys.
ucheb. zav.; gor. zhur. 6 no.3:70-73 '63. (MIRA 16:10)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy
institut imeni Artema. Rekomendovana kafedroy gornykh mashin.

BURA, G.G., [Bura, H.H.]; VITORT, G.K. [Vitort, H.K.]; ARSH, E.I.

Change in the composition of ferruginous cherts during their
disintegration by high-frequency currents. Geol.zhur. 22
no.6:23-32 '62. (MIRA 16:2)

1. Dnepropetrovskiy gornyy institut.
(Ukraine—Chert—Analysis)

VITORT, G. K., Cand. Tech. Sci. (diss) "Investigation of Thermal Methods of Secondary Crushing under Conditions of Open Mining Operations," Dnepropetrovsk, 1961, 15 pp. (Dnepropetrovsk Mining Inst.) 200 copies (KL Supp 12-61, 264).

KPSHTEYN, Yevgeniy Fedorovich; ARSH, Emanuel' Izrailevich; VITORT, Genrikh
Konstantinovich; KAYSEKOVA, S.M., vedushchiy red.; GANINA, L.V.,
tekhn.red.

[New methods of rock breaking] Novye metody razrusheniia gornykh
porod. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi
lit-ry, 1960. 85 p. (MIRA 13:10)
(Rock drills) (Mining engineering--Equipment and supplies)

VULETIN, V.; ALMOZLINO, R.; VITOSEVIC, V.

Direct irradiation of the exposed liver with 1400 r., and
behavior of the latter in the postirradiation period.
Bul sc Youg 7 no.1/2:12 F-Ap '62.

1. Institut za patolosku fiziologiju VMA, Beograd.

*

VITOSHINSKAYA, M.I., bibliograf; GEKKER, I.F., bibliograf; SHNEYDER, R.A., bibliograf; GLAZKOVSKAYA, Ye.A., bibliograf; KLYASHTORNYI, S.G., bibliograf; SOLOV'YEV, S.P., doktor geologo-mineralog. nauk, red.; KULIKOV, M.V., kand.biolog.nauk, red.; IVANOVA, A.G., tekhn. red.

[Geological literature in the U.S.S.R.; bibliographical year-book for 1955] Geologicheskaya literatura SSSR; bibliograficheskiy ezhegodnik za 1955 g. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane nedr, 1959. 333 p. (MIRA 12:11)

1. Moscow. Vsesoyuznaya geologicheskaya biblioteka. 2. Vsesoyuznaya geologicheskaya biblioteka Vsesoyuznogo geologicheskogo nauchno-issledovatel'skogo instituta. (for Vitoshinskaya, Gekker, Shneyder, Glazkovskaya, Klyashtornyy).
(Bibliography--Geology)

VITOSHINSKAYA, M.I., bibliograf; GEKKER, I.F., bibliograf; SHNEYDER, R.A., bibliograf; GLAZKOVSKAYA, Ye.A.; KLYASHTORNYI, S.G.; SOLOV'YEV, S.P., doktor geologo-mineral.nauk, red.; KULIKOV, M.V., kand. biolog.nauk, red.; PERLIN, S.S., red.izd-va; GUROVA, O.A., tekhn.red.

[Geological literature of the U.S.S.R.; a bibliographical year-book for 1954] Geologicheskaya literatura SSSR; bibliograficheskii ezhegodnik za 1954 g. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1957. 185 p. (MIRA 12:1)

1. Moscow. Vsesoiuznaya geologicheskaya biblioteka.
(Bibliography--Geology)

VITOSHINSKAYA, M.I., bibliograf; GEEKER, I.F., bibliograf; SHNEYDER, R.A., bibliograf; SOLOV'YEV, S.P., doktor geologicheskikh nauk, redaktor; KULIKOV, M.V., kandidat biologicheskikh nauk, redaktor; PERLIN, S.S., redaktor izdatel'stva; GUROVA, O.A., tekhnicheskiy redaktor

[Geological literature of the U.S.S.R.; a bibliographical annual for 1951] Geologicheskaya literatura SSSR; bibliograficheskii ezhegodnik za 1951 g. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1956. 146 p. (MLRA 10:2)

1. Moscow. Vsesoyuznaya geologicheskaya biblioteka. 2. Vsesoyuznaya geologicheskaya biblioteka Vsesoyuznogo Nauchno-issledovatel'skogo geologicheskogo instituta Ministerstva geologii (for Vitoshinskaya, Gekker, Shneyder, Solov'yev, Kulikov)
(Bibliography--Geology)

ALYAVDIN, V.F.; VASIL'YEVA, L.F.; VITOSHINSKAYA, M.I.; GRIGOR'YEVA, L.N.;
GODLEVSKIY, M.N.; ZHEREINA, K.M.; ZHEZEZKOVA, V.N.; KISELEVA, A.N.;
KOZYREVA, Yu.A.; KULIKOV, K.V.; PAFENGOL'TS, K.N.; POLEVOY, B.P.;
SOIOV'YEV, S.P.; STULOV, N.N.; SHAFRANOVSKIY, I.I.

In memory of A.V.Nemilovoi. Zap.Vses.min.ob-va 90 no.6:756-757
'61. (MIRA 15:2)

(Nemilova, Aleksandra Vasil'evna, 1892-1961)

SILIN, Nikolay Aleksandrovich; VITOSHKIN, Yuriy Konstantinovich;
KARASIK, V.M., kand. tekhn. nauk, otv. red.; FILATOVA, T.A.,
red.

[Hydraulic conveying of coal in pipes and methods of its
calculation] Gidrotransport uгля po trubam i metody ego
rascheta. Kiev, Izd-vo AN USSR, 1964. 86 p.

(MIRA 18:2)

KLAPETEK, J.; technicka spoluprace: VAVROUCHOVA, B., PhMr.; VITOULOVA, V., PhMr.

An improved paste for attaching EEG electrodes. Cesk. neurol. 26
no.1:12-17 Ja '63.

1. Neurologicka klinika lekarske fakulty PU v Olomouci, prednosta
prof. dr J. Hrbek, DrSc.
(ELECTROENCEPHALOGRAPHY) (EQUIPMENT AND SUPPLIES)

VITCUS, P.

VITCUS, P. Mine surveying in the time of Agricola. p. 396.

Vol. 5, No. 11, Nov. 1955

UHLI

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accessions, Vol. 5, No. 5, May 1956

ATONS, P.

Harmonic operation of equipment in the development of brown coal mines. p. 101.
USML, Praha, Vol. 5, no. 3, Mar. 1955.

SO: Monthly List of East European Accessions, (USML), LC, Vol. 4, no. 12, Oct. 1955,
Uncl.

VITOUS, P.

"Mining technique in the time of Agricola." P. 323.

RUDY. (Ministerstvo hutního průmyslu a rudných dolů). Praha,
Czechoslovakia, Vol. 3, No. 11, Nov. 1955.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

VITOUS, Vladislav

Location of ground short circuits. Elektrotechnik 19 no.10:296
0 '64.

1. Nova hut Klementa Gottwalds National Enterprise, Kuncice.

VITOUŠKOVÁ, M.

International fashion competition. p.345. (Textil, Praha, Vol. 9, no. 11, Nov. 1954)

SO: Monthly list of East European Accessions (EEAL), LC Vol 4, No. 6, June 1955, Uncl

VITOV, Ye.

In our Ryazan Province. Pozh.delo 5 no.8:13-14 Ag '59.
(MIRA 12:12)

1. Zamestitel' nachal'nika Upravleniya vnutrennikh del Ryazan-
skogo oblispolkoma.
(Ryazan Province--Fire prevention)

VITKOVA, A.
BARDOBEJ, E.

OSLO, NORWAY

no academic degree indicated

Department of Work Hygiene, Medical Faculty of Hygiene, Charles University
(Katedra hygieny prace lekarske fakulty hygienicke University Karlovy), Prague;
District Hygienic-Epidemiological Station (Okresni hygienicko-epidemiologicke
stаницe), Moscow.

Prague, Ceskoslovenska Hygiena, No 9, Oct 62, pp 543-547.

"Determination of Diphenyl and Diphenyl Oxide in the Atmosphere"

Co-authors:

BARDOBEJ, E. same as above

BARLA, J. " " "

KREACKOVA V. " " "

VITKOVA, A. " " "

BARDODEJ, Zdenek; BARDODEJOVA, Eva; BENES, Vaclav; KUKACKOVA, Vera;
VITCOVA, Alena

Diuresis and the phenol test. Cesk. hyg. 7 no.1:49-52 F '62.

1. Katedra hygieny prace lekarske fakulty hygienicke Karlovy university,
Praha.

(PHENOLS urine) (BENZENES metab.) (INDUSTRIAL MEDICINE)

BARDODEJ, Z.; BARDODEJOVA, E.; BARLA, J.; KUKACKOVA, V.; VITOVA, A.

Estimation of diphenyl and diphenyl oxide in the atmosphere. Cesk.
hyg. 7 no.9:543-547 0 '62.

1. Katedra hygieny prace lekarske fakulty hygienicke University Karlovy,
Praha Okresni hygienicko-epidemiologicka stanice, Presov.
(BIPHENYL COMPOUNDS) (AIR POLLUTION)

BENES, Václav; BARDODEJ, Zdenek; BARDODEJOVA, Eva; KUKACKOVA, Vera;
VITTOVA, Alena

Physical exertion and the phenol test. Cesk. hyg. 7 no.1:46-48 F
'62.

1. Katedra hygieny prace lekarske fakulty hygienicke Karlovy university,
Praha.

(BENZENE metab.) (PHENOLS urine) (INDUSTRIAL MEDICINE)

VITTOVA, L.
CZECHOSLOVAKIA / Farm Animals. Domestic Fowls.

U-10

Abs Jour : Ref Zhur - Biologiya, No 16, 1957, 72191

Author : Vitova, L.

Title : Deep Ground Cover for The Feeding of Chicks.

Orig Pub : Socialist. Zemed., 1956, 6, No 19, 1194-1198.

Abstract : The first experiments with a "deep" ground cover in Czechoslovakia in chick raising gave positive results: out of 23 chickens kept on one m², the losses from coccidiosis were one percent, the average weight of the roosters at the age of ten months was 948 g, the controls, 893 gm. The ground cover composition: turf, 40%, wood shavings, 30%, chopped wheat straw, 30%, dry slaked lime, 0.5 kg per 1m² of flooring. Due to a considerable saving in labor, this method is recommended for wide use.

Card : 1/1

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L 13770-66

ACC NR: AP6005627

SOURCE CODE: CZ/0079/65/007/002/0123/0124

AUTHOR: Hrbek, A.; Vitova, Z.; Mares, P.

19B

ORG: Department of Neurophysiology, Research Institute for Child Development, Prague

TITLE: Evolution of visual evoked potentials in man [This paper was presented at the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher Nervous Functions held in Mariánské Lázně from 19 to 23 October 1964.]

SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 123-124

TOPIC TAGS: neurophysiology, man

ABSTRACT: 362 children aged between 7 months of intrauterine life and 15 years were examined. Light flashes with frequencies of 0.1 cps and 50 cps were used. The evoked potentials (EP) can be classified into 4 groups. 1. Fetal type in immature infants has a long latency and starts with a negative wave. 2. Newborn type in slightly immature infants starts with a sharp positive wave, latency is 187 msec. 3. Transitory type usually in the 2nd year of life. Begins with a negative wave, does not disappear with accelerated stimulation, but passes gradually into photic driving. 4. Mature type developing progressively from type 3. Latency is about 60 msec. Rhythmic afterdischarges follow. Evolution of optic EP in humans is substantially more complicated than in animals. [JPRS]

SUB CODE: 06 / SUM DATE: none / ORIG REF: 004 / OTH REF: 007
SOV REF: 002
Card 1/1 RW

KUCEROVA, M.; TRESOHLAVA, Z.; VITOVA, Z.

The frequency of congenital developmental defects in children hospitalized in the 2nd Pediatric Clinic during the past 15 years. Cesk. pediat. 17 no.5/6:469-475 Je '62.

1. Katedra fakultni pediatrie a Ustav vyzkumu vyvoje ditete fakulty detskeho lekarstvi University Karlovy v Praze, vedouci prof. MUDr. J. Houstek.

(ABNORMALITIES statist)

CERNY, Milos; VITOVA, Zdenka; KUCEROVA, Maria

Determination of the chromosomal number and karyotypes. Cesk. pediat.
16 no.10:915-921 0 '61.

1. Ustav obecne biologie fakulty vseobecneho lekarstvi v Praze, pred-
nosta prof. RNDr. et MUDr. B. Sekla Vyzkymu vyvoje ditete a katedra
fakultni pediatrie fakulty detskeho lekarstvi KU v Praze, prednosta
prof. MUDr. J. Houstek.

(CHROMOSOMES)

HRBEK, A.; VITOVA, Z.; MARES, P.

Evolution of evoked visual potentials in man. *Activ. nerv. sup.*
(Praha) 7 no.2:123-124 '65

1. Department of Neurophysiology, Research Institute for Child
Development, Prague. 2. A. Hrbek's address: Praha 2, Sokolska 2.

CZECHOSLOVAKIA

HRBEK, A.; VITOVA, Z.; MARES, P.; Department of Neurophysiology,
Institute for Research of Development of Children, Faculty of Pediatrics
(Neurofysiologicke oddeleni Ustavu vyzkumu vyvoje ditete, fak. detsk. lek.)
Prague.

"Changes of Cortical Responses to Increased Frequency of Flash Stimuli."

Prague, Coskoslovenska Fysiologie, Vol 14, No 5, Oct 1965; p 349-350.

Abstract: Study in 372 children from the 7 fetal month to age 15, 0.1 HZ.
to 50 HZ. Changes were closely correlated with age and are described in
detail. Graph, 1 Czech and 1 Western reference. Paper presented at the
15th Physiology Days, Olomouc, 28 May 65.

1/1

HRABA, T.; MAJSKY, A.; VITOVA, Zdenka; MATOUSEK, V.

Influence of the mother's blood group on the formation of natural
isoagglutinins by the child. Folia biol. no.1:60-62 '62.

1. Institute of Experimental Biology and Genetics, Czechoslovak Academy
of Sciences, and Institute of Haematology and Blood Transfusion,
Second Children's Clinic, Prague.
(BLOOD GROUPS ~~in~~ pregnancy) (ANTIBODIES in infancy & childhood)

Vitovec, F.

M

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/ *The Relationship Between the Work of Deformation and the Volume of the
Test-Piece Involved in the Deformation in the Tensile Test. F. Vitovec.
(Berg. u. Hüttenwesen. Monatsk. Montan. Hochschule Leoben, 1949, 94, (12),
362-365).--A mathematical analysis of the stresses involved during the
necking of tensile test-pieces, i.e. when the vol. of material taking part in
the deformation becomes progressively less than the vol. in the gauge length.
--E. N.

Dec. 1950

CA

Theory of plastic deformation. P. Vitovec and H. Nowotny (Tech. Hochschule, Vienna). *Z. Physik* 131, 41-7 (1951).—The dynamic plasticity equation of Becker (C.A. 19, 3182) is in disagreement with exptl. results. However, by substituting in Becker's expression of the threshold energy the differences between the energies corresponding to theoretical internal energy and to applied tension for the tensions themselves an equation is obtained that represents the exptl. data very well over an extended temp. region.
James L. Lauer

VITOVEC, J.; FRIED, V.

Solubility of acetylene in benzol, toluol, and p-xylene. Coll Cz
Chem 25 no.6:1552-1556 Je '60. (EEAI 10:9)

1. Forschungsinstitut fur synthetischen Kautschuk, Gottwaldov und
Institut fur physikalische Chemie, Technische Hochschule fur Chemie,
Prag.

(Acetylene) (Benzene) (Toluene) (Xylene)

FRIED, V.; VITOVEC, J.

Lique-steam equilibrium. XXIII. Phase equilibrium in vinylacetylene-
benzene, vinylacetylene-toluene, and vinylacetylene-p-xylene.
Coll Cz Chem 25 no.6:1642-1648 Je '60. (EKA1 10:9)

1. Institut für Physikalische Chemie, Technische Hochschule für Chemie,
Prag, und Forschungsinstitut für synthetischen Kautschuk, Gottwaldov.

(Butenyne) (Benzene) (Toluene) (Xylene)
(Phase rule and equilibrium)

Distr: 4E2c(j)/4E3d

✓ Solubility of vinylacetylene in benzene, toluene, and p-xylene. J. Vitovec and V. Fried (Výzkumný ústav syntetického kaučuku, Gottwaldov, Czech.). *Collection Czechoslov. Chem. Commun.* 25, 2218-21(1960)(in German).
 —The soly. of the vinylacetylene in benzene, toluene, and p-xylene was detd. by the satn. method. These systems do not obey Henry's law. The results are expressed by the equations: C_6H_6 , $\log z = (1277.9/T) - 2.6170$; toluene, $\log z = (1233.2/T) - 2.6356$; p-xylene, $\log z = (1165.6/T) - 2.2443$, where z denotes the soly. expressed by the mole fraction at the partial pressure 760 mm. Hg and T is the abs. temp. The results of the satn. and of the circulation method (CA 54, 20450e) agree. E. Erdős.

4
 AW(BW)
 JAJ(VB)
 2

VITOVEC, J.

Distr: 4E2c(j)/4E3d

XXIII. The phase equilib-
 Liquid-vapor equilibria. riums in the binary systems vinylacetylene-benzene, vinyl-
 acetylene-toluene, and vinylacetylene-p-xylene. V. Fried-
 and J. Vitovec (Vysoká škola chemicko-technol., Prague).
 Collection Czechoslov. Chem. Commun. 25, 1842-8 (1960);
 cf. CA 54, 16062a. The isobaric vapor-liquid equil. were
 detd. at 740 mm. Hg on a modified circulation app. and
 correlated by means of the Hala 3-const. equation (CA
 53, 21107b). The agreement with the Hildebrand soly.
 theory is good; the behavior of the systems studied does
 not deviate significantly from an ideal one. E. Erdős

1-BW (BW)
 2-JAT (NB) (MAY)
 2

L 30730-66

SOURCE CODE: CZ/0039/65/026/012/0730/0734

ACC NR: AP6022107

AUTHOR: Vitovec, Jindrich (Engineer; Candidate of sciences)

ORG: Electrical Engineering Faculty, CVUT, Prague (CVUT, fakulta elektrotechnicka)

TITLE: Graphic-electrical transducer of periodical waveforms with an extremely low frequency

SOURCE: Slaboproudy obzor, v. 26, no. 12, 1965, 730-734

TOPIC TAGS: low frequency, phototube, electronic equipment, acoustoelectric transducer, electric waveform

ABSTRACT: The paper describes equipment facilitating the conversion of a graphical waveform into an electrical one. A phototube with a long cathode is used. The luminous flux impinging on the cathode depends on the form of a stencil wound on a rotary glass tube. The frequency of the output voltage can be varied within the range of from 0.01 cps to 1 cps, the distortion of the waveform as compared with the input being less than 5%. Orig. art. has: 12 figures and 3 formulas. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 09, 20 / SUBM DATE: 07Jul65 / ORIG REF: 005

Card 1/1 *FV*

UDC: 621.396.615.11

Distr: 4E2c(j)/4E3d

4
1-BW (BW)
2-LTAT (NB) (MAY)
2.
Solubility of acetylene in benzene, toluene, and p-xylene. I. Vitovec and V. Fried (Výzkumný ústav syntetického kaučuku, Gottwaldov, Czech.). Collection Czechoslov. Chem. Commun. 25, 1552-3 (1960).—The soly. of acetylene in benzene (I), toluene (II), and p-xylene (III) was detd. by the satn. method in the temp. range from 20° to: for I 80°, II 90°, and III 120°. The results were expressed by the Bunsen absorption coeff. α : $\log \alpha = (A/T) + C$, where the consts. A and C have the values: for I 626.00, -1.4600; II 665.31, -1.0480, III 630.06, -1.5628. The results agree well with the Hildebrand soly. theory; the mean soly. parameter of acetylene is 6.80. The ratio of abs. temps. at which the gas has the same soly. in 2 solvents is const. B. Keddor

VITOVEC, J.; REZABEK, A.

"Calculation of the rotameter. In Russian."

p. 1699 (Collection of Czechoslovak Chemical Communications, Vol. 22, no. 5,
Oct. 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 7, July 1958

VITOVEC, J.; REZABEK, A.

Calculation of rotameters. p. 159. (Chemicke Listy. Vol. 51, no. 1, Jan. 1957.)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

VITOVEC, J.

Category : CZECHOSLOVAKIA/General Problems - Method and Technique of Investigation A-4

Abs Jour : Ref Zhur - Fizika, No 1 1957, No 143

Author : Vitovec, J., and Sykora, S.

Title : Continuous Measurement of the Specific Gravity of Liquids

Orig Pub : Chem. listy, 1956, 50, No 1, 140-143

Abstract : A method was developed for continuous measurement of the specific gravity of liquids. The method is based on the principle of the variation of the hydrostatic pressure. The measurements can be performed over a range of 1000-1060 g/cc with an accuracy of ± 0.001 g/cc.

Card : 1/1

Vitovec J.

5
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Continuous measurement of the density of liquids. I.
J. Vitovec and S. Sýkora (Výzkumný ústav synt. Kautčuku,
Příbram, Czech.). Chem. Listy 50, 149-3 (1956).
An app. based on the changes of hydrostatic pressure is
described. B. Průša

Smil ①
JPK

CZECHOSLOVAKIA

ZAHOR, Z.; PROKS, C.; VITOVEC, J.; Okresni Veterinary Institution (Okresni Veterinarni Zarizeni), Pisek; Okresni Institute of National Health (Okresni Ustav Narodniho Zdravi), Pisek.

"The Finding of Eggs of the Liver Fluke Fasciolides Magna (Bassi, 1875) and of Fascioloidal Changes in the Liver of Cattle."

Prague, Veterinarni Medicina, Vol 11, No 6, Jun 66, pp 397-402

Abstract [Authors' English summary modified]: Two cases of occurrence of the great liver fluke are described. The changes induced by the fluke were mainly hemorrhage, modified hemorrhage, cicatrices with variously advanced hyalinization, granulomas due to F. magna eggs. A brown-and-black pigment was found in the liver and in regional lymphatic nodes of the affected cattle. The extent of the changes was reduced after the animals were healed. 4 Figures, 1 Table, 4 Western, 10 Czech, 3 East German references. (Manuscript received 6 Dec 65).

VITOVITSKIY, M.M.

New tillage practices applied in the crop rotation systems of
Kirghizistan. Zemledelie 7 no.12:78-79 D '59.
(MIRA 13:3)

1. Frunzenskaya zonal'naya opytno-selektsionnaya stantsiya
Vsesoyuznogo instituta tabachnoy i makhorochnoy promyshlennosti.
(Kirghizistan--Tillage)

VITOVETS, RZHEZHABEK

CZECHOSLOVAKIA/Laboratory Equipment. Instruments, Their Theory F
Construction, Application

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, No 7758

Author : Vitovets, Rzhazhabek

Inst : Not Given

Title : The Calibration of Rotaneters by a Computation Method

Orig Pub : Chem. listy, 1957, 51, No 1, 159-163

Abstract : The relationship between a flowing liquid, its properties,
specific property of the float and its position in the ro
taneter is given.

The constant relationships are determined experimentally.
The relationship makes possible the calibration of rotaneters
by computation method with an accuracy of 1%.

Card : 1/1

17

VITOVETSKIY, M.M.

USSR/Cultivated Plants - Technical Oleaceae, Sugar Plants

M-7

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1698

Author : M.M. Vitovetskiy

Inst : Not Given

Title : Raising a Supplementary Crop of Tobacco on the Tops of the Side Shoots

Orig Pub : Nauch. tr. Frunzensk zonal'n. ovyt.-selekts. st. Vses. n.-i. in-ta tabaka i ma'horki, 1956, vyp. 1, 34-40

Abstract : An exposition of the results of work done at the testing field of the Frunze testing station during 1953-1954. The tobacco top shoots were removed at first during the budding period of 30-40% of the plants, the second time, during the blooming of all the remaining plants. The racemes, formed on the side shoots and on the principal stem, were removed. The harvest of the basic crop of tobacco was carried out in five shifts and that of the side shoots in one procedure. The highest yield (basic and supplementary) was obtained by removing the top and side shoots and leaving one leaf (30.1 c/h). The most

Card : 1/2

Vitovetskii, M.M.

USSR/Soil Science. Mineral Fertilizers.

I-5

Abs Jour: Referat.Zh.Biol., No. 16, 25 Aug, 1957 69033

Author : Vitovetskii, M.M.

Inst :

Title : The Role of Fertilizers in Obtaining High Yields of
Crops by Rotation of Tobacco Crop with Perennial
Grasses.

Orig Pub: Nauch. tr. Frynzensk. zonaln. opit.-selekts. st. Vses.
n.-1. in-ta tabaka i makhorki, 1956, No. 1, 14-33

Abstract: No abstract

Card 1/1

- 27 -

VITOVETSKIY, P.; KOTOVA, M.

Let's improve the training of printers. Prof.-tekh. obr. 18 no.2:26
F '61. (MIRA 14:3)

1. Inspektor Moskovskogo gorodskogo upravleniya professional'no-
tekhnicheskogo obrazovaniya (for Vitovetskiy).
2. Direktor khudozhestvennogo remeslennogo uchilishcha No.3, Moskva
(for Kotova).

(Printing as a trade)

EXCERPTA MEDICA Sec 16 Vol 7/6 Cancer June 59

2314. **Remarks on the immediate postoperative treatment of pulmonary carcinoma** VITOVSKÁ A. Surg. Clin., Hyg. Med. Clin., Prague *Neoplasma* 1958, 5, 3 (312-316)

The author presents the principles which rule the immediate postoperative care after pulmonary resections with special regard to restoring the normal intrathoracic pressure conditions, the compensation of blood losses, and the prevention of purulent complications.

VITOVSKA, A.; CHYBA, J.

Traumatic aneurysm of the central mesenteric artery successfully operated on. Cesk. gastroent. vyz. 15 no.3:183-188 My '61.

1. Chirurgická klinika LFH, prednosta prof. dr. Emerich Polak Ustav
patologicke anatomie LFH, prednosta doc. dr. Josef Stolz.
(MESENTERIC VESSELS wds & inj) (ANEURYSM surg)

VITOVSKA, Anexka (Praha 12, Srobarova 50, Lekarska fakulta hygienicka)

Remarks on the immediate postoperative treatment of pulmonary carcinoma. Neoplasma, Bratisl. 5 no.3:312-316 1958.

1. Surgical Clinic of the Hygienic Medical Clinic in Prague 12.
(PNEUMONECTOMY, in various dis.
cancer of lungs, immediate postop. care)

VORREITH, M.; VITOVSKA, M.; PAZDEHKA, V.

Intestinal lipodystrophy (Whipple's disease). Cas. lek. cesk. 97 no.40:
1250-1255 3 Oct 58.

1. Patologickoanatomicke oddeleni Ustredni vojenske nemocnice nacelnik
pplk. M. Vorreith II vnitřni odd. Ustredni vojenske nemocnice, nacelnik
gen J. Srmcka Hlavni I patologicka-anatomicky ustav KU v Praze.
(LIPODYSTROPHY, case reports
intestinal (Pol))
(INTESTINES, dis.
lipodystrophy, case reports (Cz))

KISELEV, P.N.; KASHKIN, K.P.; BOLTAKS, Yu.B.; VITOVSKAYA, G.A.

Acquisition of resistance to radioactivity by a microbe cell kept
in a medium with a high natural radiation level. Mikrobiologiya
30 no.2:207-213 Mr-Apr '61. (MIRA 14:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy
radiologii i Khimiko-farmatsevticheskiy institut, Leningrad.
(BACTERIA) (RADIATION—PHYSIOLOGICAL EFFECT)

YELIN, V. N. P.; VITOVSKAYA, G. A.

Composition of antigenic preparations derived from yeastlike
fungi. Vop. med. khim. 11 no.4:18-24 J1-Ag '65. (MIRA 18:8)

1. Khimiko-farmatsevticheskiy institut, Leningrad.

YELINOV, N.P.; VITOVSKAYA, G.A.

Structure of hapten from *Candida pseudotropicalis*. *Biochimica* 30
no.5:933-938 S-O '65. (MIRA 18:10)

1. Leningradskiy khimiko-farmatsevticheskiy institut.

YELINOV, N.P.; VITOVSKAYA, G.A.

Study of the chemical composition of hapten from *Rhodotorula glutinis*.
Biokhimiia 30 no.2:310-314 Mr-Apr '65. (MIRA 18:7)

1. Khimiko-farmatsevticheskiy institut, Leningrad.

I. 1253-66 FET(1)/T JV
ACC NR: AR6022387 (N)

SOURCE CODE: UR/0397/65/000/024/0065/0065

AUTHOR: Fel'dman, I. Kh.; Frankovskiy, Ch. S.; Yamshchikov, V. P.;
Mordvinova, Ye. T.; Maryukhta, Yu. B.; Zaikina, N. A.; Vitovskaya, G. A.;
Arkad'yeva, G. Ye.

TITLE: Azo-derivatives of benzene as potential antibacterial compounds.
I.

SOURCE: Ref. zh. Farmakologiya. Toksikologiya, Abs. 24.54.512

REF SOURCE: Tr. Leningr. khim.-farmatsevt. in-ta, vyp. 18, 1965, 171-172

TOPIC TAGS: benzene, chemical compound, microorganism contamination,
bacteria, plant parasite

ABSTRACT: An in vitro method of serial dilutions was used to test the
activity of several synthetic azo-compounds in relation to
dermatophytes, some gram positive and gram negative bacteria and two
species of yeastlike molds. All the tested azo-compounds containing a
carboxylic group proved inactive. The exception was 2,4-dichlor-3-
carboxy-4'-oxyazobenzol. The azo-compounds displayed highest activity
in relation to Cr. neoformans, weaker activity in relation to
dermatophytes, and the weakest in relation to Candida albicans. Only

UDC: 615.7

Card 1/2

L 1162-2-66

ACC NR: AR6022387

certain azo-compounds displayed antibacterial and antiviral action. The highest in vitro activity was displayed by 2,4-dichlor-4'-methyl-4-oxyazobenzol and 2,4-dichlor-4'-oxyazobenzol which proved most effective in relation to yeastlike molds and dermatophytes and weakest in relation to bacteria. M. Zabolotskaya. [Translation of abstract].

SUB CODE: 06, 07

Card 2/2 *mt*

YELINOV, N.P.; VITOVSKAYA, G.A.; TOMILINA, I.V.

Study of the composition of polysaccharide haptens from yeast
fungi. Zhur.mikrobiol., epid. i immun. 42 no.3:43-47 Mr '65.
(MIRA 18:6)

1. Leningradskiy khimiko-farmatsevticheskiy institut.

BUGEL'SKIY, Yu.Yu.; VITOVSKAYA, I.V.; GODLEVSKIY, M.N.; ZVEREVA, Ye.A.; KORIN,
I.Z.; NIKITIN, K.K.; NIKITINA, A.P.; PISEMSKIY, G.V.; SAPOZHNIKOV, D.G.;
SOKOLOV, G.A.; CHUKHROV, F.V.; SHCHERBAKOV, D.I.; EDEL'SHTEYN, I.I.;
YANITSKIY, A.A.

Il'ia Isaakovich Ginzburg, 1882?-1965; obituary. Geol.rud.mestorozh.
7 no.4:109-110 J1-Ag '65. (MIRA 18:8)

BERKHIN, S.I.; VITOVSKAYA, I.V.; GINZBURG, I.I.

Montmorillonite containing admixtures of halloysite from the oxidation zone in the Kyzyl-Espe deposit. Kora vyvetr. no.5: (MIRA 16:7)
7-16 '63.

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralologii i geokhimii AN SSSR.
(Kazakhstan—Montmorillonite)
(Kazakhstan—Halloysite)

SINZBURG, I.I.; VITOVSKAYA, I.Y.

Weathering of garnet, axinitic, and tremolitic rocks in arid
regions of central Kazakhstan. Kora vyvetr. no.2:299-316 '56.
(MLRA 9:8)
(Kazakhstan--Tremolite)(Kazakhstan--Garnet)(Kazakhstan--Axinite)

GINZBURG, I.I.; VITOVSKAYA, I.V.

Erosion of quartz in hydrous micaceous-montmorillonite clays.
Kora vyvetr. no.2:235-238 '56. (MLRA 9:8)
(Clay) (Quartz)

VITOVSKAYA, I.V., [translator], GULDIN, N.Ye., [translator], KRASHENINNIKOV,
V.A., [translator], KHARKEVICH, D.S., [translator]; SOKOLOV,
G.A., red.; KARASEV, A.D., red.; ROMANOVICH, G.P., red.; SMIRNOVA,
N.I., tokhn. red.

[Studies on ore deposits; collection of articles] Problemy rudnykh
mestorozhdenii; sbornik statei. S. predisl. G.A.Sokolova. Moskva,
Izd-vo inostr. lit-ry, 1958. 495 p. (MIRA 11:11)
(Ore deposits)

VITOVSKAYA, I V

D.

USSR/ Cosmochemistry - Geochemistry. Hydrochemistry

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4153

Author : Ginzburg, I.I., Vitovskaya, I.V.

Inst : Academy of Sciences USSR

Title : Sokonite in Weathering Shell of Lead-Zinc Deposits of Central Kazakhstan

Orig Pub : Sb: Kora vyvetrivaniya. No 2, M., AN SSSR, 1956, 184-187

Abstract : First description in central Kazakhstan of the clayey mineral s sokonite, formed in ore skarns and skarnic limestones. Associated minerals: montmorillonite, baddeleyite and nontronite. Chemical composition of the sokonite (in %): SiO_2 38.16, Al_2O_3 6.70, Fe_2O_3 2.38, CaO 1.27, MgO 1.19, $\text{K}_2\text{O} + \text{Na}_2\text{O}$ 0.98, ZnO 34.88, H_2O^- 8.28, $\text{H}_2\text{O} + 7.52$, total 101.36. Structural formula

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VITOVSKAYA, I.V.; BERKHIN, S.I.

Serpentine, cerolite, and nontronite in the weathering surface
of the Lipovsk ultrabasic massif. Kora vyvetr. no.9:3-23 '65.
(MIRA 19:1)

VITOVSKAYA, I.V.

New data on the mineralogy of the oxidation zone in the
Akchagyl deposit in central Kazakhstan. Kora. vyvetr.
no. 3:74-116 '60. (MIRA 13:12)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR.
(Kazakhstan--Mineralogy)

VITOVSKAYA, I. V., Cand Geol-Min Sci -- "Mineralogy of the
hypergenesis zone of deposits ^{sk} in Akchagyl and Kysyl-Espe ⁱⁿ of
Central Kazakhstan, and distribution of ^{trace} ~~micro~~elements in the
rocks and minerals of these deposits." Mos, 1961. (Mos
Order of Lenin and Order of Labor Red Banner State U in
M. V. Lomonosov. Acad Sci USSR. Inst of Geol of Ore De-
posits, Petrography, Mineralogy, and Geochem "IGEM") (KL,
8-61, 233)

- 101 -

GINZBURG, I.I.; VITOVSKAYA, I.V.

Sauconite in the zone of weathering of central Kazakhstan lead-zinc
deposits. Kora vyvetr. no.2:184-187 '56. (MLRA 9:8)
(Kazakhstan--Sauconite) (Kazakhstan--Zinc ores)

VITOVSKAYA, I.V. (Translator)

SMIRNOV, V.I., redaktor; ZNAMENSKAYA, V.K., redaktor; TSUKERMAN, A.M., redaktor; VITOVSKAYA, I.V. [translator]; GULDIN, N.Ye. [translator]; GOTMAN, Ya.D. [translator]; KONSTANTINOV, M.M. [translator]; GERASIMOVA, Ye.S., tekhnicheskii redaktor.

[Geochemical methods of prospecting for ore deposits; collection of articles] Geokhimicheskie metody poiskov rudnykh mestorozhdenii; sbornik statei. Perevod s angliiskogo i nemetskogo I.V.Vitovskoi, N.E.Galdina, Ia.D.Gotmana i M.M.Konstantinova. Moskva, Izd-vo inostrannoi lit-ry, 1954. 582 p. [Microfilm] (MLRA 8:1)
(Geochemical prospecting)

VITOVSKAYA, Irina Vladimirovna; GINZBURG, I.I., doktor geologo-miner. nauk;
BRODSKIY, S.A. red. izd-va; SUSHKOVA, L.A., tekhn. red.

[Mineral composition and behavior of microelements in the super-
gene zone of Akchagyl and Kyzyl-Espe] Mineral'nyi sostav i povedenie
mikroelementov v zone gipergeneza Akchagyla i Kyzyl-Espe. Moskva,
Izd-vo Akad.nauk SSSR, 1962. 129 p. (Akademiia nauk SSSR.
Institut geologii rudnykh mestorozhdenii, petrografii, mineralogii
i geokhimi. Trudy, no.75.). (MIRA 15:6)
(Kazakhstan--Ore deposits) (Kazakhstan--Trace elements)

23774

S/190/01/003/006/07/019
B110/B208

15 8109

2209

AUTHORS:

Tsvetkov, V. N., Vitovskaya, M. G.

TITLE:

Photoelastic effect in the stereoisomers of polymethyl methacrylate. I. Atactic and syndiotactic polymers

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, v. 3, no. 6, 1961, 931 - 935

TEXT: The sensitivity of the optical anisotropy of polymethyl methacrylate molecules to structural stereoisomerism may also be used for the quantitative determination of stereoregularity if no crystallization results. The optical anisotropy of the phase dispersed in benzene solution of isotactic PMMA is negative (presence of crystallite); contrary to the positive one of dissolved macromolecules. Unilateral elongation should give rise to uniaxial orientation of the chain molecules of the amorphous and crystalline fractions. In the present paper the orientation in the films of some PMMA stereoisomers is studied by means of the photoelastic

Card 1/9

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B110/8208

Photoelastic effect in the ...

effect. The following samples were tested: one of the syndiotactic PMMA fractions (sample C), and a non-fractionated atactic PMMA sample (sample B) which had been obtained by complete polymerization at room temperature. Sample C was polymerized by ionic catalysis at low temperatures in the laboratory of A. A. Korotkov, and fractionally precipitated from benzene solutions by methanol. The authors selected 0.1 - 0.3 mm thick, 0.55 cm broad and 3 cm long transparent and optically homogeneous samples without visible crystallites. The molecular weights were determined by the light scattering method (Table). The vitrification temperature T_{vit} was for both samples $\sim 110^{\circ}\text{C}$. The measuring device for birefringence was described by the first author in Ref. 2 (Vysokomolek. soyed., 2, 1045, 1960) and in Ref. 3 (Vestnik Leningradskogo Universiteta, 1956, No. 16 (3), 5). The phase difference δ caused by elongation under the action of the force F was determined on the penumbra by Brace. The birefringence Δn which was formed in the film under stress of the constant elongation weight F was measured. The photoelastic effect ξ was determined according to $\xi = \Delta n / p = \delta (\lambda / F) h_0^{-1/2}$, where Δn = difference of the refractive indices at the elongation stress p ; h_0 = film width in non-deformed state; λ = length

Card 2/9

23774

S/190/61/003/006/017/019
B**0/B208

Photoelastic effect in the

of the light wave; α - relative film length under stress. Temperatures were above and below the vitrification temperature, low stresses were applied, in which α differed by 45% from the unit. The curves in Figs. 1 and 2 are similar for atactic and syndiotactic stereoisomers and characteristic of "retarded" photoelasticity. The equilibrium values of the birefringence are proportional to the stress P_0 (Fig. 3). The inclination of the straight line of Fig. 3 gives the photoelastic coefficient ϵ for each temperature. Fig. 4 shows the temperature dependence of ϵ . The similarity of the photoelastic properties of the two polymers indicates a relationship of their microstructures. The curves of the time dependence on Δn (Figs. 1 and 2) and the proportionality of the equilibrium values Δn as a function of stress P_0 (Fig. 3) are characteristic of the photoelastic properties of linear polymers in high-elastic state. The birefringence of the two polymers is a typical photoelastic effect which is usually observed in amorphous polymers and which is due to orientation of molecular chains in the direction of elongation. The segmental anisotropy may be calculated from ϵ according to the formula of the statistical theory: $\epsilon = (2\pi/45kT) \cdot [(\bar{a}^2 - \bar{a}^2)/\bar{a}^2] \cdot \bar{a}^2$. The results are summarized in the Table. The temperature course of the photoelastic coefficient of

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23774

S/190/6/003/006/0.7/019
B110/B208

Photoelastic effect in PMMA

atactic PMMA (Fig. 4) has already been dealt with by the first author (Ref. 1: Vysokomolekulyarnye soedineniya, 1960; Ref. 4: Zh. tekhn. fiziki, 28, 97, 1958). A change in amount and sign of Δ and α_1, α_2 in the high-elastic state (110 - 100°C) may be explained by a change of the elongation character in the lateral ester group. When the temperature is raised, the mean position of the atoms of the ester group is removed from the plane that is normal with respect to the chains of the principal valencies. This results in a decrease of negative anisotropy, change in sign, and increase of the positive anisotropy. The syndiotactic polymers whose microstructure is closely related to the atactic one behave in a similar way. The values of the segmental anisotropy α_1, α_2 , which were obtained at 190°C in the mass are close to the values of α_1, α_2 found in the solutions. There are 4 figures, 1 table, and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy AN SSSR (Institute of High Molecular Compounds of the AS USSR)

SUBMITTED: November 9, 1960

Card 4/9

25272

S/190/61/003/007/015/021
B101/2226

15.8070

AUTHORS: Tsvetkov, V. N., Vitovskaya, M. G.

TITLE: Photoelastic effect in stereoisomers of polymethyl methacrylate. II. Isotactic polymer

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 7, 1961, 1077 - 1083

TEXT: In a preceding paper (Vysokomolek. soyed., 3, 1077, 1961), the atactic and syndiotactic polymethyl methacrylate (PMMA) had been studied with respect to optical anisotropy. In the present paper, the authors studied isotactic PMMA by the same method. Fig. 1 shows the typical curves of birefringence with constant voltage for three fractions of isotactic PMMA. Figs. 1, 6, 8 were recorded below vitrification temperature (T_g about 50°C), Figs. 1, 2, 3, 4, 5, 7, 9 above this temperature in highly elastic state of the PMMA films. Therefore, the following is concluded: (1) Birefringence Δn is positive and occurs with retardation when tension is engaged. When the current is switched off, relaxation takes place. (2) In low-molecular fractions, positive anisotropy

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25271

S/190/61/003/007/015/021
B101/B226

Photoelastic effect ...

decreases the more rapid above T_g , the lower the molecular weight (M), and becomes negative. Negative anisotropy relaxes very slowly. It is assumed that two effects are superposed here. (A) The first effect is caused by orienting the molecular chains of the amorphous part of the polymer, and is analogous to the birefringence of atactic and syndiotactic PMMA. It is called photoelastic effect. The equilibrium value of birefringence Δn is proportional to the voltage. Transition to the highly elastic state causes a rapid increase of the photoelastic coefficient k . At this state, its value is the same for all isotactic fractions ($k \cdot 10^{12} = 12.7 - 15.0 \text{ cm}^2/\text{dyne}$) and three times larger than in syndiotactic and atactic PMMA. Segment anisotropy ($\alpha_1 - \alpha_2$)

$\cdot 10^{25} \text{ cm}^3$ was found to be equal to $3.5 - 4.1$, and is twice as large as in non-isotactic PMMA. This increase of positive Δn is explained by a change of nature of rotation about the valence bonds in the ester side group of the molecular chain. (B) The second component of birefringence of isotactic PMMA is negative. It develops only gradually with permanent application of current. This effect is explained by orienting the molecular chains being bound to crystallites, and called crystallite effect. The films investigated were chiefly of the amorphous type;

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25272

S/196/61/003/007/015/021
B101/B226

Photoelastic effect ...

their crystallinity could not be determined by X-ray structural analysis. Measurement of birefringence at a low voltage is thus a sensitive method for studying the crystallinity of polymers, if it cannot be proved otherwise. The crystallite effect becomes noticeable only above T_g . It is assumed that the short-range and long-range order being present in the crystalline phase promote inhibition of rotation about the side groups, and increase the negative anisotropy. The data on optical anisotropy previously found (Vysokomolek. soved., 2, 1966, 1960) in solution by the dynamic optical method are in qualitative agreement with the data obtained by the study of films. There are 3 figures, 1 table, and 4 references: 3 Soviet and 1 non-Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soedineniy AN SSSR
(Institute of High-molecular Compounds, AN USSR)

SUBMITTED: November 9, 1966

Card 3/6

S/190/62/004/004/013/019
B117/B138

15.8070
AUTHORS:

Tsvetkov, V. N., Vitovskaya, M. G., Lyubina, S. Ya.

TITLE:

Synthesis and investigation of the structure of catalytic poly-n-butyl methacrylate. II. Optical anisotropy of molecules of the poly-n-butyl methacrylate stereoisomers

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, v. 4, no. 4, 1962, 577-582

TEXT: Dynamic double refraction in solutions (benzene) and photoelastic effect in films were studied with atactic, syndiotactic and isotactic stereoisomers of poly-n-butyl methacrylate (PBMA). The optical measurements made by the standard method showed that double refraction Δn as a function of the speed gradient is linear for all stereoisomers. Dynamic-optical properties of solutions of syndiotactic and atactic polymers practically coincide. The negative optical anisotropy of these samples proved to be seven times higher than that of isotactic PBMA. The photoelastic effect of syndio- and atactic polymers was measured at +70 to 0°C and the isotactic polymer at +40° to -25°C. The photoelastic properties of syndio- and atactic polymers also almost agree. In a highly elastic state negative anisotropy was established for them. In the temperature range investigated, the anisotropy of isotactic

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B117/B138

Synthesis and investigation of...

samples proved to be positive and, in the highly elastic state of the sample, two to three times higher than the photoelastic constant ϵ of the two others. Conclusion: The data determined point to a similarity of atactic and syndiotactic microstructures. During transition from atactic to isotactic structure a reduction of the negative anisotropy of the macromolecule takes place which leads to a change of the sign of the photoelastic coefficient. This strong change of anisotropy may be explained by slight change of the rotational character in the ester side group. High sensitivity of the optical anisotropy of molecules to their spatial arrangement seems to be characteristic for polymers of the methacrylate series. It is, therefore, possible that the determination of the optical anisotropy of macromolecules of similar polymeric systems could be used as a sensitive method of investigating their spatial arrangement. There are 5 figures and 1 table.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-molecular Compounds AS USSR)

SUBMITTED: March 18, 1961

Card 2/2

X

TSVETKOV, V.N.; BOYTSOVA, N.N.; VITOVSKAYA, M.G.

Flexibility of the side groups and optical anisotropy of some polyacrylic
and polymethacrylic esters. Vysokom.sped. 6 no.2:297-303 F '64.
(MIRA 17:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

ACCESSION NR: AP4043773

S/0190/64/006/008/1387/1390

AUTHOR: Tsvetkov, V. N., Vitovskaya, M. G.

TITLE: The photoelastic effect in grafted copolymers

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 8, 1964, 1387-1390

TOPIC TAGS: polymer, copolymer, grafted copolymer, photoelasticity, polystyrene, polymethylmethacrylate, polybutylmethacrylate, polymer optical property, polymer film refraction

ABSTRACT: To investigate the extent to which the optical properties of the original parent polymers are preserved in grafted copolymers, the authors measured the photoelasticity of films prepared from 1. three copolymers produced by grafting polystyrene on polymethylmethacrylate, and 2. two copolymers produced by grafting polystyrene on poly-n-butylmethacrylate. The copolymers, prepared by ionic catalytic polymerization, differed in chain length ($M=600 \cdot 10^3$ and $200 \cdot 10^3$ in the main chain and $2 \cdot 10^3$ and $24 \cdot 10^3$ in the grafted chain) and in the percentage of grafted polystyrene (13, 80, 86 and 88). The films were prepared by vaporization of benzene solutions. A previously described method was used to examine the behavior of the double refraction of the films in time as a

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ACCESSION NR: AP4043773

function of stretching stresses intermittently applied at temperatures ranging from that of copolymer mechanical softening to that of fluidization. The temperature range of increased elasticity was found to be narrow, with the temperatures of fluidity and vitrification being close and the photoelastic properties of the grafted copolymers showing a pattern markedly different from that of the parent polymers. The double refraction observed in the grafted polymer films is understood to result from the superimposition of positive and negative refractions differing significantly in the relaxation time. "The grafted copolymers were prepared by S. P. Mitsengendler and G. A. Andreyeva in the laboratory of A. A. Korotkov (Institute of High-Molecular Compounds) by ionic catalytic polymerization." Orig. art. has: 1 table and 4 graphs.

ASSOCIATION: Institut vy*sokomolekulyarny*kh soyedineniy An SSSR (Institute of High-Molecular Compounds, AN SSSR).

SUBMITTED: 20Jul63

ENCL: 00

SUB CODE: OC

NO REF SOV: 008

OTHER: 000

Card 2/2

VITOVSKAYA, M. V., Moscow

"Some regularities in the appearance of mixture elements in clay minerals"
(Section VI)

report to be submitted for the Second Conference on Clay Mineralogy and Petrography,
Prague, Czech., 10-17 May 1961.

IZMAYLOV, M.; VITOVSKAYA, Ye., starshiy ekonomist

Give more attention to maintaining credit. Den. i kred. 20
no.9:50-54 S '62. (MIRA 15:9)

1. Nachal'nik planovo-ekonomicheskogo otдела Alma-Atinskoy oblastnoy kontory Gosbanka (for Izmaylov). 2. Planovo-ekonomicheskiy otдел Alma-Atinskoy oblastnoy kontory Gosbanka (for Vitovskaya).
(Alma-Ata Province—Credit)